Commonwealth of Kentucky
Environmental and Public Protection Cabinet
Department for Environmental Protection
Division for Air Quality
803 Schenkel Lane
Frankfort, Kentucky 40601
(502) 573-3382

Draft

AIR QUALITY PERMIT

Issued under 401 KAR 52:030

Permittee Name:	**Uranium Disposition Services, LLC**
Mailing Address:	**1020 Monarch Street, Suite 100** **Lexington, KY 40513**
Source Name:	**Depleted Uranium Hexafluoride Conversion Facility**
Mailing Address:	**5600 Hobbs Road** **Paducah, KY 42001**
Source Location:	**U.S. Department of Energy Paducah Site** **Paducah, KY 42001**
Permit:	**F-05-015 Revision 1**
Agency Interest:	**49944**
Activity:	**APE20070001**
Review Type:	**Federally Enforceable Conditional Major**
Source ID:	**21-145-00091**
Regional Office:	**Paducah Regional Office** **4500 Clarks River Road** **Paducah, KY 42003-0823** **(270) 898-8468**
County:	**McCracken**
Application Complete Date:	**May 30, 2007**
Issuance Date:	**October 14, 2005**
Revision Date:	
Expiration Date:	**October 14, 2010**

John S. Lyons, Director
Division for Air Quality

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	Permit type	Log or Activity#	Complete Date	Issuance Date	Summary of Action
F-05-015	**Initial Issuance**	**APE20040003**	**3/17/2005**	**10/14/2005**	**Initial Construction Permit**
F-05-015	**Revision, Major**	**APE20070001**	**5/30/2007**		**Permit Revision**

SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first having submitted a complete application and received a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:030, Federally-enforceable permits for non-major sources.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

01 (U001) Conversion Facility Building

Process Description:

The proprietary process used to convert depleted uranium was developed and is owned by AREVA NP. The process is currently in use at a site in Richland, Washington that is licensed by the U.S. Nuclear Regulatory Commission and will also be used on the U.S. Department of Energy (DOE) reserve in Portsmouth, Ohio. Four Parallel process lines are used to convert depleted uranium hexafluoride (DUF_6), currently stored in cylinders by DOE, to uranium oxide powder, aqueous hydrogen fluoride (HF), and calcium fluoride (CaF_2). The process takes the material through vaporization, conversion, HF recovery, and off-gas scrubbing. The resultant high purity HF is collected and marketed. The remaining low-level uranium oxide powder is loaded into emptied UF_6 cylinders for disposal. CaF_2 is generated during the regeneration of potassium hydroxide (KOH).

Emission point 01 is the stack of the Conversion Facility Building. This concrete building is kept at a negative pressure relative to the outside ambient pressure. A Heating Ventilating and Air Conditioning (HVAC) system will maintain the negative pressure and process all building and off-gas ventilation. The facility also houses the Oxide Handling Systems. Piping and vessels provide primary containment for this function and vented hoods collect and send any emissions through a pre-filter, a High Efficiency Particulate Air (HEPA) filter, and then the final HEPA exhaust filter bank before exhausting out the stack. The cylinder modification and stabilization systems are also contained in this facility. A controlled ventilation system, utilizing an 80% recirculation rates as well as pre-filters and HEPA filters, will handle all building and process gasses prior to venting to the final HEPA exhaust filter bank and the monitored facility stack. This emission point accounts for the majority of all process emissions.

Individual Equipment Descriptions:

Process Line 1:

- Control For Oxide Powder: Containment, In Process Filters, HVAC Collection, Pre-filters, Final HEPA Bank
- Control for HF: Primary Caustic Scrubber, Secondary Scrubber (common to lines 1-4), Final HEPA Bank

Process Line 2:

- Control For Oxide Powder: Containment, In Process Filters, HVAC Collection, Pre-filters, Final HEPA Bank
- Control for HF: Primary Caustic Scrubber, Secondary Scrubber (common to lines 1-4), Final HEPA Bank

Process Line 3:

- Control For Oxide Powder: Containment, In Process Filters, HVAC Collection, Pre-filters, Final HEPA Bank
- Control for HF: Primary Caustic Scrubber, Secondary Scrubber (common to lines 1-4), Final HEPA Bank

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

01 (U001) Conversion Facility Building (Continued)

Process Line 4:
Control For Oxide Powder: Containment, In Process Filters, HVAC Collection, Pre-filters, Final HEPA Bank
Control for HF: Primary Caustic Scrubber, Secondary Scrubber (common to lines 1-4), Final HEPA Bank
Oxide Handling System:
Control: Vented Hood, Pre-filter, HEPA Filter, Final HEPA Bank

APPLICABLE REGULATIONS:

401 KAR 52:030, Federally enforceable permits for non-major sources.

401 KAR 53:010. Ambient air quality standards.*
*for the Gaseous Fluorides, Total Fluorides

401 KAR 57:002. 40 C.F.R. Part 61 national emission standards for hazardous air pollutants.
This incorporates, by reference, 40 C.F.R. Part 61, Subpart A, *General Provisions* and 40 C.F.R. Part 61, Subpart H, *National Emission Standards For Emissions of Radionuclides Other than Radon from Department of Energy Facilities.*

401 KAR 59:010. New process operations.

401 KAR 63:010. Fugitive emissions.

401 KAR 63:020. Potentially hazardous matter or toxic substances.

902 KAR 100:015. General Requirements [Contains As Low As Reasonably Achievable (ALARA) requirement]

1. Operating Limitations:

a. The building shall be maintained at a negative pressure relative to the outside ambient pressure.

b. The Conversion Building stack uranium and HF monitors shall be in continuous operation during operation of exhaust equipment.

c. The Primary Scrubbers and the common Secondary Scrubber shall be installed, maintained, and operated in accordance with manufacturer's specifications; and always operated within the caustic flow rate and caustic concentration ranges necessary for emissions compliance as established during initial emissions testing.

d. All HEPA filters and the Final HEPA filter exhaust bank shall be installed, maintained, and operated in accordance with manufacturer's specifications; and

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

always operated within the pressure drop range necessary for emissions compliance as established during initial emissions testing.

Compliance Demonstration Method:

1) See Monitoring Requirements, below.

2) Maintain a data file noting dates and times when the above requirements are not met (e.g. excursions in flow rates and pressures outside established ranges for compliance) and include in semi-annual reports.

2. Emission Limitations:

a. Radionuclides: The emissions of radionuclides from this source to the ambient air shall not exceed those amounts that would cause any member of the public to receive in any year an effective dose equivalent of 10 mrem/yr as defined and prescribed in 40 CFR 61 Subpart H (61.90 through 61.97).

Compliance Demonstration Method:

To determine compliance with this standard, radionuclide emissions shall be determined and effective dose equivalent values to members of the public shall be calculated using the most recent stack data and the CAP-88 computer model or alternate pre-approved model annually.

b. Particulate: At an approximate process weight rate of 3 Tons (English)/Hour, the particulate allowed by 401 KAR 59:010 would be 7.09 lb/hr.

Compliance Demonstration Method:

The source is in compliance with 401 KAR 59:010 based on the emission rates and type of emissions given in the application submitted by the permitee. If the permitee alters process rates, material, controls, or any other factor that would result in an increase of emissions, the permitee shall submit the appropriate application forms and modeling to show that the facility will remain in compliance with 401 KAR 53:010. Submissions shall be made in a timely manner pursuant to 401 KAR 52:030.

c. HF: The Hydrogen Fluorides produced by this facility are considered Federal Hazardous Air Pollutants.

In accordance with 401 KAR 63:020, the Facility shall not emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants and must comply with Ambient Air Quality Standards as established in 401 KAR 53: 010. In addition, to remain a minor source, emissions of HF must be less than 9 tons on a rolling 12-month average.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Compliance Demonstration Method

The source is in compliance with 401 KAR 63:020 based on the emission rates of toxics given in the application submitted by the source. If the source alters process rates, material formulations, or any other factor that would result in an increase of toxic emissions or the addition of toxic emissions not previously evaluated by the Division, the source shall submit the appropriate application forms pursuant to 401 KAR 52:030, Section 3(1)(a), along with modeling to show that the facility will remain in compliance with 401 KAR 63:020.

The source is in compliance with 401 KAR 53:010 based on the emission rate of HF given in the application submitted by the source. If the source alters process rates, material formulations, or any other factor that would result in an increase of HF emissions, the source shall submit the appropriate application forms and modeling to show that the facility will remain in compliance with 401 KAR 53:010. Submissions shall be made in a timely manner pursuant to 401 KAR 52:030.

d. Opacity standard:
Pursuant to 401 KAR 59:010, Section 3, No person shall cause, suffer, allow, or permit any continuous emission into the open air from a control device or stack associated with any affected facility which is equal to or greater than twenty (20) percent opacity.

Compliance Demonstration Method:

The source is assumed to be in compliance with opacity limits.

3. Testing Requirements:

Critical parameters and operating ranges for all control equipment shall be established during initial emission testing. These established parameters must be kept on record on-site.

4. Specific Monitoring Requirements:

For Radionuclides (Uranium):

a. In accordance with the ALARA requirements of 902 KAR 100:015, General Requirements, the negative pressure of the Conversion Building necessary to provide containment for the process shall be continuously monitored and alarmed for excursions outside established operating parameters. The optimal operating parameters for the HVAC system shall be established during initial emissions testing, and the permitee shall install, calibrate, maintain and operate according to manufacturer's specification, monitoring devices to determine the building pressure relative to the outside ambient pressure as well as those parameters critical to the optimal operation of the HVAC equipment. The established parameters shall be kept on record for inspection and excursions outside the parameters shall be recorded and reported to the Paducah Regional Office within 30 days (See Section F, 8, below).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

b. The permittee shall install, calibrate, maintain and operate according to manufacturer's specification monitoring devices to determine the pressure drop across each HEPA Filter and Final HEPA Filter Exhaust Bank during the operation of the facility. A maximum pressure drop across each filter device shall be established during preliminary emissions testing. The established parameters and monitoring results shall be kept on record for inspection.

c. The permitee shall install, calibrate, maintain and operate according to manufacturer's specification continuous monitoring devices to determine the levels of Uranium and HF exiting the Conversion Building stack and interlock systems to shutdown processes when leaks or other problems occur. The critical level to alarm and/or trip process shutdown for each device shall be established during preliminary emissions testing. The established levels and excursions that alarm or cause shutdown shall be kept on record for inspection. The permitee shall also follow procedures in 40 CFR 60.93, Emission monitoring and test procedures.

For HF:

The permittee shall install, calibrate, maintain and operate according to manufacturer's specification monitoring devices to determine the caustic flow and caustic concentration in each scrubber during the operation of the respective line. The minimum flow and concentration of caustic (as determined by a pH measurement) in the device shall be established during preliminary emissions testing. The established parameters and monitoring results shall be kept on record for inspection.

For Opacity:

None

5. Specific Recordkeeping Requirements:

a. The permitee shall maintain records of established operating parameter limits for scrubbers, HEPA filters, Final HEPA Exhaust Filter Bank, and the HVAC system.

b. The permitee shall maintain records of the monitoring of established critical parameters for the control devices, i.e. records of caustic flow rate, caustic concentration for each operating scrubber, records of pressure drop across each operating pre-filter, HEPA Filter and of the Final HEPA Exhaust Bank, any alarm or safety-interlock process shutdowns, and all results of stack monitoring.

c. The permitee shall maintain records of daily throughput of DUF_6 into the facility, daily throughput of Uranium Oxide out of the facility, daily hours of operation, and records of in-stack monitoring for HF and Uranium Oxide.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

d. Annual effective dose calculations, including inputs and assumptions, shall be kept available for inspection.

6. Specific Reporting Requirements:

In accordance with 401 KAR 57: 002, a duplicate of monitoring reports and modeling results submitted to the U.S. Environmental Protection Agency (EPA) as required under 40 C.F.R. 61.94 (Subpart H), shall be submitted to the Division.

7. Specific Control Equipment Operating Conditions:

a. As established in 1. Operating Limits, above, the HVAC system must be functioning and maintain a negative building pressure during process operation. If the HVAC system (exhaust fan) is inoperable, the process operation must be shutdown or stopped.

b. All scrubbers and HEPA filters must be fully operational during the operation of any process line with which it is directly associated.

8. Alternate Operating Scenarios

None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

02 (U002) HF Loading Area

Description: The 55% Hydrogen Fluoride byproduct from the conversion process will be gathered in HF receiver tanks located in the conversion facility. The HF will be periodically pumped from these tanks to the HF Storage Tanks, which are located in a secondary containment sump just outside the Conversion Building, for subsequent load out for transportation. The air displaced in filling of the storage tanks or transport vehicles will be vented back through a dedicated caustic scrubber and other pollution control devices until it is released to the atmosphere through Emission Point 02. No radioactive materials enter this process or exit through Emission Point 02.

Individual Equipment Descriptions:

HF Storage/Load-Out Tanks:
HF service designed lines and equipment
Leak detection instrumentation
Caustic scrubber and pollution control devices

APPLICABLE REGULATIONS:

401 KAR 52:030, Federally enforceable permits for non-major sources.

401 KAR 53:010. Ambient air quality standards (for Gaseous Fluorides, Total Fluorides).

401 KAR 59:010. New process operations.

401 KAR 63:010. Fugitive emissions.

401 KAR 63:020. Potentially hazardous matter or toxic substances.

1. Operating Limitations:

a. The HF Loading Area caustic scrubber shall be in continuous operation during the filling and/or emptying of the HF storage tanks.

b. The HF tank leak monitors shall be in continuous operation during operation of the neutralization equipment.

c. The HF Loading Area caustic scrubber shall be installed, maintained, and operated in accordance with manufacturer's specifications; and always operated within the caustic flow rate and caustic concentration ranges necessary for emissions compliance as established during initial emissions testing.

2. Emission Limitations:

a. HF: The Hydrogen Fluorides produced by this facility are considered Federal Hazardous Air Pollutants.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

In accordance with 401 KAR 63:020, the Facility shall not emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants and must comply with Ambient Air Quality Standards as established in 401 KAR 53:010.

Compliance Demonstration Method

The source is in compliance with 401 KAR 63:020 based on the emission rates of toxics given in the application submitted by the source. If the source alters process rates, material formulations, or any other factor that would result in an increase of toxic emissions or the addition of toxic emissions not previously evaluated by the Division, the source shall submit the appropriate application forms pursuant to 401 KAR 52:030, Section 3(1)(a), along with modeling to show that the facility remains in compliance with 401 KAR 63:020.

The source is in compliance with 401 KAR 53:010 based on the emission rate of HF given in the application submitted by the source. If the source alters process rates, material formulations, or any other factor that would result in an increase of HF emissions, the source shall submit the appropriate application forms and modeling to show that the facility remains in compliance with 401 KAR 53:010.

Submissions shall be made in a timely manner pursuant to 401 KAR 52:030.

b. Particulate: Pursuant to 401 KAR 59:010, Section (3)(2), emissions of particulate from this facility shall not exceed 7.09 lb/hr.

Compliance Demonstration Method:

The source is in compliance with 401 KAR 59:010 based on the emission rates and type of emissions giving in the application submitted by the permitee. If the permitee alters process rates, material, or any other factor that would result in a n increase of emissions, the permitee shall submit the appropriate application forms and modeling to show that the facility will remain in compliance with 401 KAR 53:010. Submissions shall be made in a timely manner pursuant to 401 KAR 52:030.

c. Opacity standard:
Pursuant to 401 KAR 59:010, Section 3, No person shall cause, suffer, allow, or permit any continuous emission into the open air from a control device or stack associated with any affected facility which is equal to or greater than twenty (20) percent opacity.

Compliance Demonstration Method:

The source is assumed to be in compliance with opacity limits.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

3. Testing Requirements:

Critical parameters and operating ranges for all control equipment shall be established during initial emission testing. These established parameters must be kept on record on-site.

4. Specific Monitoring Requirements:

For HF:

a. The HF tanks shall be continuously monitored for HF leaks in the storage tank areas and for HF leaks and high levels during operations of the storage/load-out facility.

b. The permittee shall install, calibrate, maintain and operate according to manufacturer's specification monitoring devices to determine the caustic flow and caustic concentration in the scrubber during the operation of the facility. The minimum flow and concentration of caustic (as determined by a pH measurement) in the device shall be established during preliminary emissions testing. The established parameters and monitoring results shall be kept on record for inspection.

For Opacity:

None

5. Specific Recordkeeping Requirements:

The permitee shall maintain records of established critical parameters for the control devices, i.e. caustic flow rate, caustic concentration for the scrubber, as well as records of continuous monitoring data and any alarms or interlock-caused process shutdowns which occurred.

6. Specific Reporting Requirements:

None

7. Specific Control Equipment Operating Conditions:

None

8. Alternate Operating Scenarios:

None

SECTION C - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:030, Section 6. While these activities are designated as insignificant the permittee must comply with the applicable regulation and some minimal level of periodic monitoring may be necessary.

	Description	Generally Applicable Regulation
1.	Construction Dust	401 KAR 63:010. Fugitive emissions
2.	Storage Tanks	401 KAR 63:010. Fugitive emissions
3.	Haul Roads and Off-loading Areas	401 KAR 63:010. Fugitive emissions
4.	Cylinder Storage Area	None
5.	4 Gas Reformation Units (H2GEN)	401 KAR 63:010. Fugitive emissions

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

1. As required by Section 1b of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26, compliance with annual emissions and processing limitations contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.

2. Source-wide Radionuclides, Uranium Oxide, CaF_2 solids and HF emissions, as measured by methods referenced in 401 KAR 50:015, Section 1, shall not exceed the respective limitations specified herein.

3. The emissions of radionuclides from this source to the ambient air shall not exceed those amounts that would cause any member of the public to receive in any year an effective dose equivalent of 10 mrem/yr as defined and prescribed in 40 CFR 61 Subpart H (61.90 through 61.97).

4. Source-wide emissions of HF must comply with Ambient Air Quality Standards as established in 401 KAR 53:010 and, for the facility to remain a minor source, total emissions of HF shall be less than 9 tons on a rolling twelve month basis.

   Compliance Demonstration Method:

   The source is in compliance with 401 KAR 53:010 based on the emission rate of HF given in the application submitted by the permitee. If permitee alters the process, materials, or any other factor that would result in an increase of HF emissions, the permitee shall submit the appropriate application forms and modeling to show that the facility will remain in compliance with 401 KAR 53:010. Submissions shall be made in a timely manner pursuant to 401 KAR 52:030.

5. During load out activities for all products and byproducts, permitee shall take all precautions to prevent fugitive emissions and shall follow the requirements of 401 KAR 63:010, Fugitive emissions.

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS

1. Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

1. Pursuant to Section 1b (IV)(1) of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
   a. Date, place (as defined in this permit), and time of sampling or measurements;
   b. Analyses performance dates;
   c. Company or entity that performed analyses;
   d. Analytical techniques or methods used;
   e. Analyses results; and
   f. Operating conditions during time of sampling or measurement.

2. Records of all required monitoring data and support information, including calibrations, maintenance records, and computer produced operational data, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality[401 KAR 52:030 Section 3(1)(f)1a and Section 1a (7) of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].

3. In accordance with the requirements of 401 KAR 52:030 Section 3(1) f the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
   a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
   b. To access and copy any records required by the permit:
   c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.

   Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.

4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

5. Summary reports of any monitoring required by this permit, other than continuous emission or opacity monitors, shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation. [Sections 1b-V-1 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, Section 26].

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

6. The semi-annual reports are due by January 30th and July 30th of each year. Data from the continuous emission monitors shall be reported to the Technical Services Branch in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All reports shall be certified by a responsible official pursuant to 401 KAR 52:030 Section 22. All deviations from permit requirements shall be clearly identified in the reports.

7. In accordance with the provisions of 401 KAR 50:055, Section 1 the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
   a. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
   b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall submit written notice upon request.

8. The owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F.7 above) to the Regional Office listed on the front of this permit within 30 days. Other deviations from permit requirements shall be included in the semiannual report required by Section F.5 [Section 1b V(3) and (4) of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 10].

9. Pursuant to 401KAR 52:030, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit in accordance with the following requirements:
   a. Identification of each term or condition;
   b. Compliance status of each term or condition of the permit;
   c. Whether compliance was continuous or intermittent;
   d. The method used for determining the compliance status for the source, currently and over the reporting period.
   e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

f. The certification shall be postmarked by January 30th of each year. **Annual compliance certifications should be mailed to the following addresses:**

Division for Air Quality Paducah Regional Office 4500 Clarks River Road Paducah, KY 42003-0823	Division for Air Quality Central Files 803 Schenkel Lane Frankfort, KY 40601

10. In accordance with 401KAR 52:030, Section 3(1)(d), the permittee shall provide the Division with all information necessary to determine its subject emissions within thirty (30) days of the date the KEIS emission survey is mailed to the permittee. If a KYEIS emission report is not mailed to the permittee, comply with all other emission reporting requirements in this permit.

11. Pursuant to Section VII (3) of the policy manual of the Division for Air Quality as referenced in 401 KAR 50:016, Section 1(1), results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days after the completion of the fieldwork.

12. The Cabinet may authorize the temporary use of an emission unit to replace a similar unit that is taken off-line for maintenance, if the following conditions are met:
    a. The owner or operator shall submit to the Cabinet, at least ten (10) days in advance of replacing a unit, the appropriate Forms DEP7007AI to DD that show:
        i. The size and location of both the original and replacement units; and
        ii. Any resulting change in emissions;
    b. The PTE of the replacement unit shall not exceed that of the original unit by more than twenty-five (25) percent of a major source threshold, and the emissions from the unit shall not cause the source to exceed the emissions allowable under the permit;
    c. The PTE of the replacement unit or the resulting PTE of the source shall not subject the source to a new applicable requirement;
    d. The replacement unit shall comply with all applicable requirements; and
    e. The source shall notify the Regional office of all shutdowns and start-ups.
    f. Within six (6) months after installing the replacement unit, the owner or operator shall:
        i. Re-install the original unit and remove or dismantle the replacement unit; or
        ii. Submit an application to permit the replacement unit as a permanent change.

SECTION G - GENERAL PROVISIONS

(a) General Compliance Requirements

1. The permittee shall comply with all conditions of this permit. A noncompliance shall be a violation of 401 KAR 52:030 Section 3(1)(b) and is also a violation of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act). Noncompliance with this permit is grounds for enforcement action including but not limited to the termination, revocation and reissuance, revision, or denial of a permit [Section 1a (2) of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 10].

2. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition [Section 1a (5) of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 10].

3. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:030 Section 18. The permit will be reopened for cause and revised accordingly under the following circumstances:
   a. If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:030 Section 12;
   b. The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
   c. The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

4. Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

5. The permittee shall furnish information upon request of the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or compliance with the conditions of this permit[Sections 1a (6) and (7) of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 10].

SECTION G - GENERAL PROVISIONS (CONTINUED)

6. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the permitting authority [401 KAR 52:030 Section 7(1)].

7. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Section 1a (11) of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 10].

8. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a (3) of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 10].

9. Except for requirements identified in this permit as state-origin requirements, all terms and conditions shall be enforceable by the United States Environmental Protection Agency and citizens of the United States [Section 1a (12)(b) of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 10].

10. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038 Section 3(6) [Section 1a (9) of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 10].

11. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:030 Section 11(3)].

12. This permit does not convey property rights or exclusive privileges [Section 1a (8) of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 10].

13. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Cabinet for Natural Resources and Environmental Protection or any other federal, state, or local agency.

14. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry.

15. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders.

SECTION G - GENERAL PROVISIONS (CONTINUED)

16. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source.

17. Permit Shield – A permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of permit issuance. Compliance with the conditions of this permit shall be considered compliance with:
    a. Applicable requirements that are included and specifically identified in this permit; and
    b. Non-applicable requirements expressly identified in this permit.

18. Emission units described in this permit shall demonstrate compliance with applicable requirements if requested by the Division [401 KAR 52:030 Section 3(1)(c)].

19. The authority to operate granted through this permit shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets [401 KAR 52:030 Section 8(2)].

(b) Permit Expiration and Reapplication Requirements

This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division [401 KAR 52:030 Section 12].

(c) Permit Revisions

1. Minor permit revision procedures specified in 401 KAR 52:030 Section 14 (3) may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of 401 KAR 52:030 Section 14 (2).

2. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

SECTION G - GENERAL PROVISIONS (CONTINUED)

(d) Construction, Start-Up, and Initial Compliance Demonstration Requirements

1. Construction of any process and/or air pollution control equipment authorized by this permit shall be conducted and completed only in compliance with the conditions of this permit.

2. Within thirty (30) days following commencement of construction and within fifteen (15) days following start-up and attainment of the maximum production rate specified in the permit application, or within fifteen (15) days following the issuance date of this permit, whichever is later, the permittee shall furnish to the Regional Office listed on the front of this permit in writing, with a copy to the Division's Frankfort Central Office, notification of the following:
   a. The date when construction commenced.
   b. The date of start-up of the affected facilities listed in this permit.
   c. The date when the maximum production rate specified in the permit application was achieved.

3. Pursuant to 401 KAR 52:030, Section 3(2), unless construction is commenced within eighteen (18) months after the permit is issued, or begins but is discontinued for a period of eighteen (18) months or is not completed within a reasonable timeframe then the construction and operating authority granted by this permit for those affected facilities for which construction was not completed shall immediately become invalid. Upon written request, the Cabinet may extend these time periods if the source shows good cause.

4. For those affected facilities for which construction is authorized by this permit, a source shall be allowed to construct with the final permit. Operational or final permit approval is not granted by this permit until compliance with the applicable standards specified herein has been demonstrated pursuant to 401 KAR 50:055. If compliance is not demonstrated within the prescribed timeframe provided in 401 KAR 50:055, the source shall operate thereafter only for the purpose of demonstrating compliance, unless otherwise authorized by Section I of this permit or order of the Cabinet.

5. This permit shall allow time for the initial start-up, operation, and compliance demonstration of the affected facilities listed herein. However, within sixty (60) days after achieving the maximum production rate at which the affected facilities will be operated but not later than 180 days after initial start-up of such facilities, the permittee shall conduct a performance demonstration test on the affected facilities in accordance with 401 KAR 50:055, General compliance requirements. These performance tests must also be conducted in accordance with General Provisions G(d)7,8 of this permit and the permittee must furnish to the Division for Air Quality's Frankfort Central Office a written report of the results of such performance test.

6. Terms and conditions in this permit established pursuant to the construction authority of 401 KAR 51:017 or 401 KAR 51:052 shall not expire.

SECTION G - GENERAL PROVISIONS (CONTINUED)

7. Pursuant to Section VII 2.(1) of the policy manual of the Division for Air Quality as referenced by 401 KAR 50:016, Section 1.(1), at least one month prior to the date of the required performance test, the permittee shall complete and return a Compliance Test Protocol (Form DEP 6027) to the Division's Frankfort Central Office. Pursuant to 401 KAR 50:045, Section 5, the Division shall be notified of the actual test date at least ten (10) days prior to the test.

8. Pursuant to Section VII 1.(2 and 3) of the policy manual of the Division for Air Quality as referenced by 401 KAR 50:016, Section 1.(1), if a demonstration of compliance, through performance testing was made at a production rate less than the maximum specified in the application form, then the permittee is only authorized to operate at a rate that is not greater than 110% of the rate demonstrated during performance testing. If and when the facility is capable of operation at the rate specified in the application, compliance must be demonstrated at the new production rate if required by the Division.

(e) Acid Rain Program Requirements

1. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.

(f) Emergency Provisions

1. Pursuant to 401 KAR 52:030 Section 23(1), an emergency shall constitute an affirmative defense to an action brought for noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or other relevant evidence that:
   a. An emergency occurred and the permittee can identify the cause of the emergency;
   b. The permitted facility was at the time being properly operated;
   c. During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and,
   d. The permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division within two (2) working days of the time when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and the corrective actions taken.

2. Notification of the Division does not relieve the source of any other local, state or federal notification requirements.

3. Emergency conditions listed in General Provision G(f)1 above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:030 Section 23(3)].

SECTION G - GENERAL PROVISIONS (CONTINUED)

4. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof[401 KAR 52:030 Section 23(2)].

(g) Risk Management Provisions

1. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

   RMP Reporting Center
   P.O. Box 1515
   Lanham-Seabrook, MD 20703-1515.

2. If requested, submit additional relevant information to the Division or the U.S. EPA.

(h) Ozone depleting substances

1. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
   a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
   b. Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
   c. Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
   d. Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166.
   e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
   f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

2. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, *Servicing of Motor Vehicle Air Conditioners*.

SECTION H - ALTERNATE OPERATING SCENARIOS

None

SECTION I - COMPLIANCE SCHEDULE

None